PCL

CONSTRUCTION LEADERS

The PCL Story

Our First 100 Years

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North of 60

In the Arctic the sun never rises in the winter, nor sets in the summer. In 1955 when construction of the DEW Line (Distant Early Warning) began, the majority of native people in Canada's far north still lived a nomadic life in igloos or tents made of skins, following the caribou that they hunted for food.

Poole Construction had worked sporadically in the far north since 1935 when it began work in the Northwest Territories (NWT) with a series of radio repeater stations in Waterways, Fort Smith, Yellowknife, Fort Franklin and Aklavik during a three year period. Poole then constructed two buildings in Aishihik, Yukon in 1947.

In 1957, however, Poole began its first major push into the Arctic tundra. The Canadian government had unveiled its plan for a new community to serve as a government center for the Northwest Territories, and had selected a barren site on the Mackenzie Delta. Known only as East Three, it was situated well 'North of 60,' the 60th parallel, and over 1,000 miles from Poole's home base in Edmonton.

The development of East Three and creation of Inuvik signalled the start of a new era for the Northwest Territories. The project was led by Bob Stollery, who is credited with helping to build a thriving community over a span of 17 years. It is recognized by PCL as one of its 20 REMARKABLE PROJECTS OF THE 20TH CENTURY.

In the early years the men lived and worked in the crudest of conditions in the northern frontier which is home to Canada's aboriginal peoples, the Inuit and the Dene. Many who stayed for months, and even years, learned to love the 'Land of the Midnight Sun.'

Because the Arctic is a land of permafrost, every building, road and structure must be supported by piles or be set on a minimum three-foot gravel pad; in fact, the pad for the 6,000-foot airport runway is six feet thick. Poole faced incredible obstacles in the construction of schools, hostels and commercial buildings; roads and runways; power plants, dams and bridges; and utilidors for sewer and water lines. The unique utilidor system is an above-ground network of insulated shed-like structures connecting buildings throughout the town. It serves two purposes – it prevents the permafrost base from melting, thereby causing the town to collapse, and it houses hot water heating pipes with cold water pipes right alongside each other to prevent the lines from freezing even at the coldest temperatures.

Utilidor system to serve northern communities

Steam-driving piles photo courtesy Gus Doornberg

"No towns had been built before totally on permafrost, so we encountered lots of problems that were new to us. The piles for the powerhouse were closely spaced because of the heavy loads so we steam-jetted them in. We came to the job one morning to find that we had mass-thawed the site and all the piles were standing in a lake of water. We had to stop for six weeks until the ground refroze so we could start framing."

Bob Stollery

In 1957 Poole was contracted to carry out the first paving on the Canadian section of the Alaska Highway. 1961 saw the start of the first Yellowknife project, construction of the pump house and water supply. All the work was handled out of Edmonton at the time.

By 1970 the increasing volume of northern work warranted the establishment of a new office in Yellowknife. Morris Boyle was the first manager, then Don Briggs followed by Paul Schmalz. Each of them was a mentor to his successor. In true Poole fashion, Don Briggs remembered a lesson from one of his own mentors, Charlie Neill, "When dealing with other districts, give them only quality, whether it is people or materials. We could rely on Charlie to give us quality as he could spare it, and he was always good for a chuckle. One of his unbiased pieces of advice was, 'Don't count on those Edmonton bastards,' spoken like a true Calgarian."

A long wait for the barge met with a disappointing end photo courtesy Gus Doornberg

Overcoming obstacles became a way of life. Taloyoak, formerly Spence Bay, is located in the central Arctic. In the early 1970s it had only a short takeoff and landing (STOL) airstrip and a single barge shipment per year. "We built our own air strip of ice and chartered a Hercules to get supplies in," said Morris Boyle. "The project cost at least three times what it would have anywhere in the south."

Telephone communication, too, was terribly unreliable. It was not unusual for a week to go by with no contact from the projects. Don Briggs joked, "We were always suspicious that the superintendents could have had something to do with it!"

"Our cook and I didn't see eye to eye and one day he simply quit. Now I had new problems! I knew a girl who could arrive by the next day but I told the cook he had to stay until then or he would have to pay his own $1,700 airfare home. Now the joke was on us – we got beans for supper, beans for breakfast and beans for lunch!"

Per Holmqvist, supervisor

A Hercules shipment

A 1972 Poole operating report detailed the difficulties faced on a remote site: "By necessity, a keg of nails is sent first by rail, then by truck, and finally to Inuvik with a landed cost of about $22. If, due to impassable roads, a barge sinking, or a miscalculation, this keg of nails does not arrive as needed, the contractor has two choices – curtail the operation and fly out the carpenters to wait until next year, or fly in the nails with a landed cost of about $85. You don't make any small mistakes in the north – they are all major." *(unsigned)*

Panda Centre built for Polar Pandas Developments

Northwest Tower built for Princeton Developments

Having observed that Yellowknife was an emerging center for oil and gas exploration, three hardy developers seized the opportunity to start building there in the 1970s and '80s. Entrepreneur Newton Wong contracted with Poole to build three office complexes and the courthouse of the Northwest Territories. Polar Developments developed various residential complexes and Princeton Developments Ltd. built four office towers that still dominate the Yellowknife skyline. Princeton chairman John Ferguson commented, "Due to the seasonal nature of the work you really depend on your contractor to get the job done on time – above anything else, that is what we appreciated about PCL."

Anderson Thompson Tower constructed for Polar Developments

In 1986 PCL Constructors Northern Inc. was established to formalize and reinforce the organization's ongoing commitment to the north. The new president, Fred Russell, had a soft spot in his heart for the aboriginal people.

"In one traditional little community about 175 miles north of Yellowknife a teacher was soldiering on in a log building while the wind blew right through – extremely tough conditions," recalled Fred Russell. "Of the 300 residents, 70 percent were children but only 11 attended school; the rest were not being educated. PCL built them a traditional log school with a gym and a library, and it doubled as the courthouse. One year the teachers invited our guys to the school just before Christmas. The little Inuit kids were all lined up and they sang songs. My family was with me but many of the guys had been away for a long while. At the end there wasn't a dry eye in the whole place."

Rick Lesyshen's family remained in Edmonton. "You need a good wife behind you. If your home life is not in order, then your job is not in order either. PCL is great; in an emergency they fly you out immediately, but normally you are there for your rotation. It can be rough. I did six weeks in, one week out, for 25 years, and I've seen a grown man cry when the plane couldn't land."

In 1993 PCL Northern became an operations office run out of Edmonton. As Edmonton provided most of the necessary resources the economies of scale made sense. Glen Tetarenko, district manager in Yellowknife at the time, explained, "You can fly a lot of people back and forth for less than it costs to fully staff a district."

One challenge unique to work in the far north was the lack of skilled local tradesmen. The Poole people recognized that if local workers acquired basic construction skills both the community and the organization would gain. In the early 1970s Poole undertook a government contract to build a school and residence, including all associated civil work, at Edzo, NWT. Claude Perreault, a legendary expert in building enclosures, set up and ran an on-site trade school during the project. At that time the move was considered to be very bold and generous, but for three decades PCL continued to build programs to foster the development of people whose skills would enrich their native communities.

Gary Joys trained several Inuk men in Pelly Bay (now Kugaaruk), NWT. "We spent our evenings teaching the native people to read the metric system that was being introduced to Canada at the time," said Gary. "It was gratifying when several of them later applied for apprenticeships."

In 1995 PCL formalized an Aboriginal Business Initiatives program to ensure a common corporate understanding of the benefits and responsibilities of working with various indigenous peoples. Tom Beck conveyed the sense of pride engendered by the PCL legacy. "It wasn't about jobs and short-term paychecks. It was employment coupled with skills training, and leaving people with more education than they had before you got there so they could go out and get another job. It turned into a whole socio-economic benefit. It is the reality of the north."

In 1986 Canada Defence awarded PCL Civil Constructors Inc. the contract for the remote northern long range radar station at Cartwright, Labrador. The station was constructed on Canada's east coast and was designed to replace the old distant early warning system. Personnel were flown to Goose Bay, Labrador, making the last stretch to Cartwright in a 19-passenger Twin Otter aircraft. The work site was at the highest point on the ocean shoreline where the ferocious wind was relentless. All buildings were constructed four feet off the rock base. The bases were structural steel and the pilings were steel anchors +/-30 feet long drilled into the rock to anchor these buildings from blowing away.

Long range radar station, Cartwright, Labrador

The Baffin Island short range radar project was begun in 1989 by PCL Civil Prairie in joint venture with the Foundation Company of Canada. It comprised eight radar sites, five of them in such remote locations that they were accessible by water only two weeks of the year. Workers battled winds of 125 miles per hour and were constantly on the lookout for marauding polar bears. To guard against injury to both man and beast, Inuit 'bear watchers' were hired. In one day on a single site they spotted 22 bears!

Short range radar station, Baffin Island, Nunavut

"From a construction aspect the job was pretty straight forward but the logistics were particularly difficult," said Brian Jolly. "We didn't have a global positioning system (GPS) at that time. We used a small plane to plot a course from the coast to the site, about 90 miles inland. We would fill big black plastic bags with water, then freeze them and drop them from the plane into the snow at intervals. The crews would use them as a guide to know they were on the right track – of course, sometimes the wind blew and they couldn't find the bags!"

'The Last Post,' Eureka, Nunavut photo courtesy George Whaley

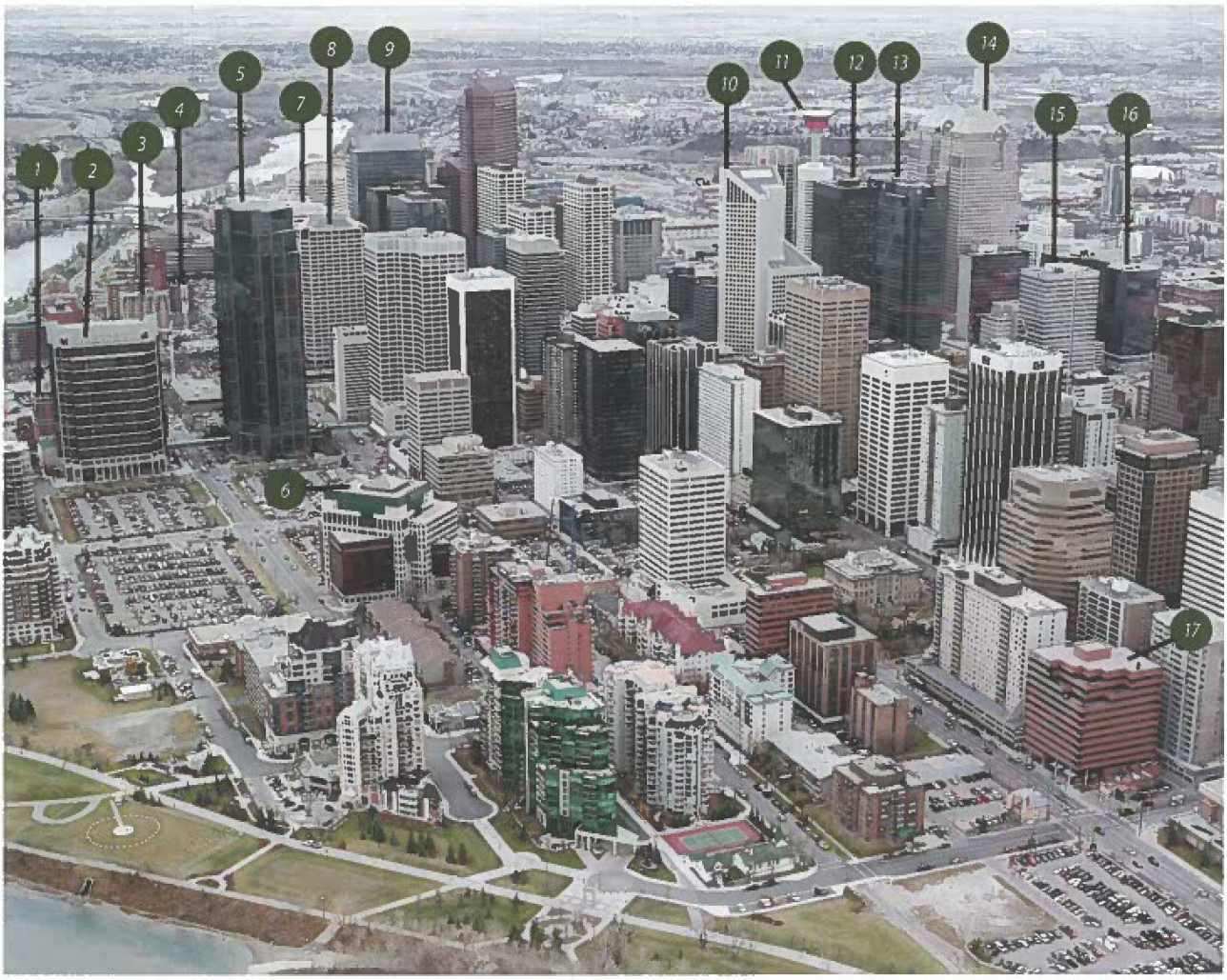
The most northerly job undertaken by Yellowknife district was at Eureka, Nunavut, just 690 miles from the North Pole. "Eureka sits on the 80th parallel, so far north they had to pump daylight to us," said George Whaley.

Northwest Territories Pavilion at EXPO '86, Vancouver, B.C. An Inukshuk is a traditional wayfinder for hunters and others while 'on the land.'

The most southerly PCL Northern job is quite a tale. Allan Shortt, the only member of PCL's Quarter Century Club who spent his entire 25 years in the north, had a particularly good way with the aboriginal people. Under Allan's direction PCL sent a crew of Inuks to help Vancouver district construct a large Inukshuk for the Northwest Territories Pavilion at EXPO '86. After the fair it was relocated to Vancouver's beautiful Stanley Park. Yellowknife subsequently sent the same crew to Brisbane, Australia for the 1988 World's Fair. That very large Inukshuk is also still standing.

Government projects comprise a significant part of PCL's portfolio in northern Canada. The Stanton Yellowknife Health Centre was built in 1988 to replace an aging facility and provide full service to a broader community. In 1993 PCL completed construction of the showpiece Northwest Territories Legislative Assembly in Yellowknife. Anchored by a wall of indigenous stone, the building incorporates native zinc in shingles and louvered panels throughout and rises to a dome in the image of an igloo. The Government of Canada building was constructed in 1999 at Iqualuit, Nunavut. In 2004 PCL undertook a multiplex sports complex in Whitehorse, Yukon. John Droog, area manager for PCL Constructors Northern Inc., said, "This premier facility will be at center stage when Whitehorse plays host to the 2007 Canada Games."

Northwest Territories Legislative Assembly, Yellowknife, 1993



It is difficult to imagine the Calgary skyline without the buildings constructed by PCL. During 1979-81 the company maintained bragging rights that it had 18 cranes in the air at once in the city's downtown core – more than anyone else. They were the "boom years" just before the federally imposed National Energy Program caused the collapse of countless petroleum-based companies in Alberta and the slow, sober recovery began.

1 *Sheraton Suites Calgary, 1998*
2 *Ernst & Young Tower (formerly Millennium Tower), 2000*
3 *Ng Apartment Tower, 1979*
4 *Bow Central Plaza, 1978*
5 *Canterra Tower, 1988*
6 *Shaw Communications Building (formerly Shell Court), 1990*
7 *Sun Life Place, Phase I, 1981*
8 *Tower Addition, Calgary Westin Hotel, 1976*
9 *TransCanada Tower, 2000*
10 *First Canadian Centre, Phase I, 1983*
11 *Calgary Tower, 1968*
12 *The Dome Tower at TD Square, 1977*
13 *Canada Trust Tower/Calgary Eaton Centre, Phase II, 1991*
14 *Bankers Hall West Tower, 2000*
15 *Western Gas Tower (formerly Calgary Centre), 1983*
16 *Gulf Canada Square, 1979*
17 *Emerson Building, 1982*